

THE DER WEEKLY

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Industry News

Beacon Power Corp. Completes More than 1000 Hours of Continuous Operation of 6 kWh Flywheel Storage System

[Beacon Power Corporation](#) has completed more than 1000 hours of continuous operation of key subsystems for its next-generation 6 kWh Flywheel Energy Storage System. The subsystems that were tested include the flywheel's integrated vacuum system, magnetic bearing system, and composite rotor structure. *PowerMarketers.com*

ABB Electricity Metering Awarded Contracts from Four Members of ERCOT

Sales contracts in the amount of \$2 million were awarded to [ABB Electricity Metering](#) from four member companies of the Energy Reliability Council of Texas (ERCOT). ABB will supply both its ION 8400 and ION 8500 advanced revenue meters, which are the first socket-mount energy meters to combine advanced power quality analysis, data/event recording, and multi-port communications with revenue-class, three-phase metering. The ION 8400 and 8500 provide increased security, while using direct Ethernet support from MV-90™ billing software that gives unlimited access to the most recent meter data, eliminates telephone line fees, and allows modem-free communication with remote meters. *PowerMarketers.com*, [ABB.com](#)



CA State Regulators Investigating Lack of QF Electricity Production

The California Public Utilities Commission (PUC) has launched an investigation into qualifying facilities' (QF) electricity production; the state regulators want to find out if

the reduced output is a result of business factors or market manipulation. The alternative energy providers have cut back energy production or shut down, as debts owed by Pacific Gas and Electric and Southern California Edison have accumulated. The PUC is concerned that some QFs are using the California system to back out of long-term contracts that require them to sell electricity at prices well below current market rates, and some QFs say the unpaid bills have caused them to break down or reduce output. Other QFs state that they cannot afford to keep operating. [San Francisco Gate](#), April 20, 2001

Solar Power System to be Installed in NY

Fala Direct DM Group, one of the nation's largest direct marketing companies, plans to install a 1.5 MW photovoltaic system at its facilities in Farmingdale and Melville, New York. The Long Island Power Authority (LIPA) has agreed to provide \$4.5 million in funding to help underwrite the cost of the \$9.3 million system. Fala will save approximately 19 percent in its energy costs with the solar energy generation, which will either be used onsite or sold back to LIPA. The company consumes about 11,500 MWh of electricity, and the solar system will produce about 2,100 MWh of electricity per year. In addition, the project will allow LIPA to evaluate the effectiveness of photovoltaics as a resource to meet the needs of Long Island's electricity demands. [Long Island Newsday](#), April 23, 2001

PA Electricity Customers Able to Buy Wind Power Supplied by Local Wind Farms

[PECO Energy Company](#) and Community Energy Inc. will offer newly-developed wind power from Mill Run and Somerset Wind Farms to their customers in southeastern Pennsylvania. Exelon Power Team will purchase the energy output from the wind farms for 20 years and manage the wholesale delivery to the regional power grid, and PECO and CEI will market the new option to commercial and residential customers. *PR Newswire*, April 23, 2001, [Enron Wind](#), [PECO Press Release](#), April 23, 2001



Enron 1.5 MW wind turbine, the type installed at Mill Run

Toshiba Ceramics Company Unveils New Material

Toshiba Ceramics Company Ltd. has developed a new ceramic material, lithium silicate, that absorbs CO₂ much faster than similar materials at room temperature. Toshiba says that the collected CO₂ can be recycled and reacted with hydrogen to produce methanol, which can be used in methanol-burning power plants. The company considers the material to be a major breakthrough in carbon sequestration technology. *Electricity Daily*, April 24, 2001

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Homeowners pay an estimated \$60 per year for electricity that leaks from appliances that are turned off.*



POWER CRUNCH

Solar House Displayed on National Mall as Part of Forum 2001 Conference, "Solar Energy: The Power to Choose"

As a special event for the [Forum 2001 Conference](#), "Solar Energy: The Power to Choose," a solar house was constructed on the National Mall, and was open to the public for tours. The conference took place from April 21 to 25, and was co-sponsored by U.S. Department of Energy, Duke Solar, BP Solar, Austin Energy, and North American Insulation Manufacturers Association. The house was constructed by Solar Strategies Development Corp. and included the following features:

- ▶ Energy efficient passive solar design strategies
- ▶ Integrated photovoltaic system with battery back-up
- ▶ Domestic solar hot water system
- ▶ High-quality and well insulated tight construction
- ▶ Water conservation equipment
- ▶ High efficiency lights and appliances



Visitors were able to tour the entire house, view the solar batteries on the second story, and look at the energy efficient appliances and lights. Information was posted throughout the house, and conference staff were available to answer questions.

Representatives from the National Renewable Energy Laboratory, Sandia National Laboratories, and DOE Headquarters spoke during various sessions throughout the conference.

Catalytica Energy Systems Ships First Full-Sized, Pre-commercial Xonon Catalyst Modules to GE Power Systems

[Catalytica Energy Systems, Inc.](#), announced on April 25 its shipment of two full-size, pre-commercial Xonon catalyst modules to GE Power Systems. The modules will be tested in support of commercial use of GE10 gas turbines, incorporating Catalytica's Xonon™ Cool Combustion system. According to the company, the system achieves ultra-low emissions in gas turbine power generation. The GE turbines are scheduled to enter commercial service in the second half of 2002 at various distributed generation project sites.



GE10 Gas Turbine

[PowerMarketers.com](#)

is being formed and an initial announcement is available on the Internet at www.sandia.gov/EESAT/. For further information, contact Dr. Imre Gyuk at imre.gyuk@ee.doe.gov.

IEEE Interconnection Standard Working Group Meets to Discuss Ballot Results

The Institute of Electrical and Electronics Engineers (IEEE) P1547 Working Group met in New Orleans, LA, April 18-20 to discuss the results of the balloting on the draft standard for interconnecting distributed resources with an electric power system. Ninety-one percent of the balloting committee returned votes on the standard, and 65 percent voted "yes," which did not meet the 75 percent margin required to pass the standard. Comments from the "no" votes were discussed, and a recommended resolution of the "no" votes was drafted as a basis for revision of the draft standard. Once the revisions are completed the draft standard will be recirculated to the balloting committee for another vote. Several critical issues seemed to be resolved at the New Orleans meeting, and it is expected that the standard will require only one or two recirculations to obtain the required 75 percent yes vote. Richard DeBlasio (NREL) chairs the working group and Tom Basso (NREL) is Secretary. Ben Kroposki (NREL), Gery Siefert (INEEL) and Joe Galdo, all members of the working group, also participated in the meeting.

DER Workshop for Indian Gaming Casino Facility Managers Held in Albuquerque

On April 9, 2001, the Heritage Institute, an Indian-owned company, presented a one-day workshop on "On-Site Electric Generation and Energy Efficiency Opportunities for Indian Gaming Facilities" for about 50 tribal casino managers and

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DOE News

International Storage Conference Coming Up

A sequel to EESAT2000, an international conference on Energy Storage Applications and Technology held last fall in Orlando, Florida, is being organized. The successful conference attracted over 120 technologists from 12 countries, representing private companies as well as universities and national laboratories. EESAT2002 is planned for Spring of 2002 and will be organized by DOE and Sandia National Laboratories and cosponsored by the Energy Storage Association. It is intended to give a comprehensive view of the current status, the rapid growth, and the increasing importance of storage technology. An international organizing committee

casino facility managers. The workshop was sponsored by the Office of Distributed Energy Resources through a DOE grant to the Heritage Institute and was held in conjunction with the annual meeting of the National Indian Gaming Association. Speakers discussed energy efficiency opportunities through high-efficiency lighting and on-site power generation by means of microturbines, fuel cells, and other DG technologies. Joe Galdo provided an overview of DER. Steve Sargent of the Denver Regional Office also participated in the workshop. The workshop included a tour of the Honeywell microturbine assembly plant in Albuquerque, which was sponsored by the Office of Distributed Energy Resources.

The Heritage Institute publishes a quarterly newsletter for Indian tribes on energy issues, and the Summer 2001 issue covering Distributed Energy Generation in Indian Country can be found at www.heritageinstitute.org/newjun01.pdf.



Regional Office News

DRO Staff Member Gives Keynote Address at Combined Heat and Power Workshop

Dr. Stephen Sargent gave the keynote address at a combined heat and power workshop, "Leveraging Technologies for Profit Maximization," held April 19-20 in Denver, Colorado. The title of the address was "Promoting the CHP Challenge;" it summarized EERE's CHP Challenge program. Workshop attendees included representatives from the oil and coal industries, and other speakers represented organizations such as the California Energy Commission, Bechtel Power Corporation, Texas Petrochemicals, and the U.S. Environmental Protection Agency.

Policy News

State of Washington Passes Energy Bill

The Washington state legislature has passed a law that would make it easier for some companies to build generators, require government offices to improve energy efficiency and conservation, give tax breaks to aluminum and other manufacturing companies that produce their own energy, and require large utilities to offer customers electricity produced from alternative sources. The bill was a compromise between Republicans and Democrats, who gave up on a provision that would have required generators to use more renewable energy sources. It was passed by nearly unanimous consent after both parties agreed that the legislation is a first step in dealing with the state's energy shortage. [Seattle Post Intelligencer](#), April 21, 2001

New York State Assembly Proposes Purchase of Con Edison's Old Power Plants

Legislation recently introduced in the New York State Assembly would create a New York City Power Authority, which would acquire the plants that Consolidated Edison Company of New York, Inc., (Con Edison) sold to other unregulated companies last year. The bill was introduced as part of an effort to cut power prices in New York City, and according to the bill's sponsor rates would be decreased by 10 to 15 percent. The new power authority would be responsible for future power supply for the city and would "end the profiteering that was the cause of about half of the price increases for electricity that took place last summer" (April 18 Press Release, Assemblymember James Brennen). Con Edison would continue to own the transmission and distribution systems and maintain responsibility for billing, maintenance, and customer service. *Reuters*, April 19, 2001, [NY State Assembly Web Site](#)

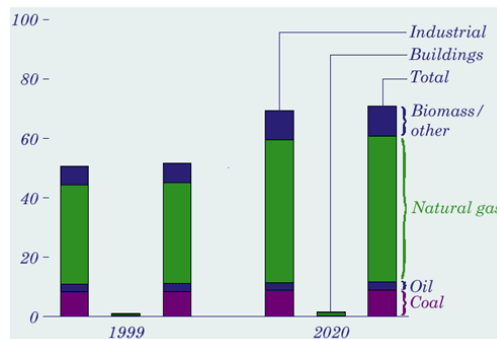
Mid-Atlantic PUCs Form Standardization Working Group

The public utility agencies from Pennsylvania, Delaware, Maryland, New Jersey, Ohio, Virginia, and the District of Columbia have formed a regional working group to maintain uniform criteria for exchanging electronic information among electric companies, generation suppliers, and other service providers. The information will be stored in a single document, maintained on a list server provided by Edison Electric Institute and will be used to assist states and market participants with electronic data. *Dow Jones Newswires* and [Pennsylvania PUC Press Release](#), April 25, 2001

By the Numbers

- 18.7 projected increase in gigawatts for natural gas fired cogeneration capacity in the industrial sector from 1999 to 2020
- 3.5 projected increase in gigawatts for biomass fired cogeneration capacity in the industrial sector from 1999 to 2020
- 70 percent of new cogeneration capacity expected to be added in the paper and chemical industries

Cogeneration capacity by type and fuel, 1999 and 2020 (gigawatts)



Annual Energy Outlook 2001, page 41

Transmission capacity has increased by 15 percent over the past 10 years, but consumption has grown 30 percent. *



Environmental News

World Resources Institute Uses New Web Page to Educate About Carbon Footprints

The World Resources Institute is the host of a new Web site, *SafeClimate.net*, which provides information about human impact on the world's climate. Visitors to the Web site can calculate their CO₂ footprints (based on energy and transportation usage); learn about ways to take action to reduce their impact on the climate (read tips, send emails to friends or legislators); and find out about the World Resources Institute's commitment to net zero carbon dioxide emissions.



[SafeClimate]

[Environmental News Network](http://www.environmentalnewsnetwork.org)

April 24, 2001, [SafeClimate.net](http://www.SafeClimate.net)

Robotic Carbon Observers Collect Carbon Data from the Pacific Ocean

A third of the carbon currently emitted by human activity (approximately 2 billion metric tons each year) is absorbed by oceans, but the process is not well understood. To further study the process, two SOLO (Sounding Oceanographic Lagrangian Observer) floats were launched into the Pacific Ocean on April 10, in an effort to collect information on the ocean's carbon cycle. The floats measure temperature, salinity, and mid-depth currents and have carbon biomass sensors. They descend a thousand meters from the ocean's surface and resurface at dawn and dusk each day, at which time they communicate their collected data to satellites. The Department of Energy is a partner in the SOLO carbon venture. [Berkeley Lab Science Beat](http://www.BerkeleyLabScienceBeat.com)



CALENDAR OF EVENTS

Date	Event	Location	Other Information
APRIL 2001			
30-May 5	Affordable Comfort Conference: Home Performance Strategies	Milwaukee, WI	www.affordablecomfort.org
30-May 1	Peak Load Management Alliance Conference	Washington, DC	Co-sponsored by AESP International; eboardman@aesp.org, 561-432-8000
MAY 2001			
1-3	Industrial Energy Technology Conf.	Houston, TX	jim@esl.tamu.edu
2-4	National Community Action Foundation's Legislative Conf.	Washington, DC	www.ncaf.org ; Secretary Abraham invited to speak
3	Oklahoma Wind Workshop	Oklahoma City, OK	conferencepros.com/windpower
9	Green Power: Turn it on!	Harrisburg, PA	www.pennfuture.org
9-10	Second Int'l CHP Symposium	Amsterdam, Netherlands	www.2ndCHPSymposium.com ; Bob Dixon invited to speak
7-9	The 21st Annual Utility Energy Forum	Tahoe City, CA	Gnelson181@aol.com
9-10	Energy Management Conference	San Diego, CA	Sponsored by FEMP; www.aeecenter.org
9-11	GasMart Power 2001	Tampa, FL	www.gasmart.com or (800) 427-5747
13-16	Seventh Annual National Clean Cities Conference	Philadelphia, PA	Clean Cities Hotline: 800-224-8437 www.ccities.doe.gov/conference.shtml
21-23	Third Annual ICEPAG Conference	Newport Beach, CA	www.parcon.uci.edu/colloquium
24-25	Conference on Hybrid Systems	Newport Beach, CA	www.parcon.uci.edu/colloquium
30-31	Fuel Cells Codes & Standards Summit V	College Park, MD	ronald.fiskum@ee.doe.gov
31	Idaho Geothermal Energy Stakeholders Workshop	Boise, ID	www.eren.doe.gov/geopoweringthewest

During the next decade, electricity consumption will increase another 25 percent, but transmission capacity is expected to increase by only 4 percent.*



CALENDAR OF EVENTS

JUNE 2001

3-6	FEMP Energy 2001 Conference	Kansas City, MO	www.energy2001.ee.doe.gov
3-7	WindPower 2001 Conference	Washington, DC	www.awea.org ; laura_keelan@awea.org
3-8	7th International Symposium on Solid Oxide Fuel Cells	Tsukuba, Ibaraki, Japan	sofc7@nimc.go.jp (National Institute of Materials and Chemical Research)
4-6	Advanced Technology Program National Institute of Standards and Technology — National Meeting	Baltimore, MD	www.atp.nist.gov/nationalmeeting
4-7	ASME Turbo Expo-Land, Sea, and Air	New Orleans, LA	www.asme.org/igti ; Debbie Haught is organizing a microturbine panel
4-7	International Joint Power Generation Conference & Expo	New Orleans, LA	www.asme.org/conf/ijpgc01 ; Debbie Haught is presenting
11	Fuel Cell Transportation Technology Summit	San Jose, CA	Sandra Gadzia; gadzia@sae.org
11-13	International Symposium on Distributed Generation: Power System and Market Aspects	Stockholm, Sweden	www.ekc.kth.se/ees/workshop/DG.htm
17-20	11th Canadian Hydrogen Conference: Building the Hydrogen Economy	Victoria, BC, Canada	www.iesvic.uvic.ca/cha (Canadian Hydrogen Association)
18-20	APPA National Conference	Washington, DC	www.appanet.org
26	Congressional Fuel Cell Exposition	Washington, DC	More information will be available at a later date.

JULY 2001

9-13	4th International Symposium on New Materials for Electrochemical Syst.	Montreal, Quebec	www.newmaterials.polymtl.ca/eng/congres
10-12	Gas Storage Workshop	Kingston, Ontario	David Quinn; quinn-d@rmc.ca
16-19	2001 National Workshop on State Building Energy Codes	Burlington, VT	www.eren.doe.gov/buildings/codes_standards/buildings/2001natl_workshop.html
24-27	ACEEE Summer Study	Tarrytown, NY	www.aceee.org ; Rebecca Lunetta; 302-292-3966
31-Aug. 1	Green Power Conference	Portland, OR	Tina Kaarsberg; tina.kaarsberg@ee.doe.gov

AUGUST 2001

21-24	International Energy Program Evaluation Conference	Salt Lake City, UT	608-835-6880; marymcc@tds.net
29-Sep. 3	IEEC Integrated Energy Efficiency Congress	Cleveland, OH	Sponsored in part by FEMP; www.aeeecenter.org

SEPTEMBER 2001

11-13	7th Grove Fuel Cell Symposium	London, UK	www.grovetfuelcell.com
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OCTOBER 2001

24-26	World Energy Engineering Congress	Atlanta, GA	www.agcc.org
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